Department of
Environmental Protection
Bureau of Land & Water Quality March 2004
O&M Newsletter

A monthly newsletter for wastewater discharge licensees, treatment facility operators, and associated persons

Standard Conditions

This is the second in a series of articles that will run for the entire year and will ultimately cover all of the "STANDARD CONDITIONS" found in all permits. As you will notice, these articles are not following the Standard Conditions by their order in the list – rather, we are grouping them by related or similar subject matter. Regardless of when your permit was issued, you need to dig out the Standard Conditions (a separate, apparently generic attachment to your license after the "SPECIAL CONDITIONS") and review them. If you're like a lot of other treatment facility owners or operators, this may be your first time! It may seem like pretty dull, "boilerplate" stuff, but the Standard Conditions are important to assuring that your treatment facility is in full compliance with its permit and all applicable laws and statutes. The complete list of Standard Conditions may be found on line at:
http://www.state.me.us/dep/blwq/docstand/wastepage.htm#gen

A. GENERAL PROVISIONS

10. Duty to reapply. *If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.*

For most permittees in the waste water program, the discharge of wastewater authorized by the permit is not a temporary activity, rather we expect that the permit will continue indefinitely. However, in nearly all cases, the term of the permit is 5 years, but there are a few issued for shorter intervals. According to State law and DEP Rules, for the discharge to remain licensed, a complete application must be filed with the Department before the expiration date of the permit.
The Administrative Procedures Act, 5 M.R.S.A., section 10002 Expiration, states that the existing permit does not expire until the new permit is issued, provided that a timely and complete application is filed. Bear in mind that it is your responsibility to apply, and not the responsibility of the Department to remind you. Without a timely and complete application, the permit lapses and the discharge becomes illegal (see DEP Rules (CMR 06-096), Chapter 2, section 21(A)).
Filing the application before the expiration date is pretty obvious, but what makes a complete application is not. DEP Rules

Chapter 521, section 4(e) states what is needed for an application to be complete: a correctly completed application form and information to address all of the items requested on the application form. The next 8 subsections of the rule, 4(f) through 4(m), explain the detailed information requirements for various types of permittees. The Department will send application forms when you request them, or when the Department determines that you need to file an application. While it is the permittee's responsibility to submit a timely application, current Department practice is to send a renewal application packet to all licensed dischargers approximately 3 months prior to license expiration.

5. Permit actions. *This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.*

The first sentence in this condition is fairly short, but a variety of actions can result. These can range from simple correction of errors in the permit to contentious public hearings before the Board of Environmental Protection.
Maine law allows permits to be modified, and these modifications can start in a few different ways. The detailed description of the process can be found in Maine Law 38 M.R.S.A., Section 414-A (5). Permittees (you) can request modifications for valid causes or changed circumstances, like wrong limits, new information, major changes in industrial flows, additional treatment, etc. The Department can initiate a modification for a number of reasons that are listed specifically in the law, including substantial changes in the treatment process, new information that would have led to different limits or conditions, correct errors, etc. The Department cannot start the process of modification because of revised rules, guidance or test methods. The Board of Environmental Protection can modify, revoke or suspend a license when any of the conditions listed in 38 M.R.S.A., Section 341-D (3) exist. Some of these are: the permitted discharge or activity threatens human health or the environment, the permittee obtained the license by misrepresenting relevant facts or by failing to disclose fully all relevant information, the licensee has violated any law administered by the Department. The causes for Board action are obviously serious issues, and neither the Board nor the Department would undertake these lightly or without a decision that there was no other reasonable way to resolve the problem.
The second sentence in this standard condition is longer, but a much simpler issue: the existing license conditions or limits remain in force until the proposed modification is final. In other words, the application for a modification provides no protection against non-compliance with the existing conditions.

6. Reopener clause. *The Department reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule of compliance or other provisions which may be authorized under 38 MRSA, §414-A(5).*

This condition overlaps quite a bit with Standard Condition 5, but points out the Department's ability to write special conditions in the permit that provide for reopening when the conditions described in the license occur. There are a couple of specific reasons set out in statute that the Department might reopen your permit; to

add or change limits for toxic compounds or to include schedules of compliance to implement industrial pretreatment rules.

As always, if you have any questions or concerns regarding your license or any other water compliance issues, contact your facility Inspector. He or she will be able to work with you, or direct you to the appropriate departmental resources.

All water quality laws and regulations can be accessed at:
http://www.maine.gov/dep/environlrr.htm

Phil Garwood

A Reminder on Sample Holding Times

There are a few tests that have very short sample holding times, and this has a practical effect on how and where tests must be conducted. Total Residual Chlorine, Dissolved Oxygen, pH and sulfite must be analyzed "immediately" upon collection, with that being defined as usually within 15 minutes of sample collection. (You can find all approved test methods in the Federal Regulations, 40 CFR Part 136. Table II in that regulation sets acceptable holding times.) Essentially, this means that grab samples for these parameters should not be sent to an outside laboratory for analysis since the holding time will be greatly exceeded. Where your discharge permit requires monitoring for these, the analysis must be done on site in order to produce valid results.

For compliance monitoring purposes, the Department cannot accept the results for tests noted above where the sample was shipped to an outside laboratory. However, there may be some circumstances where it is appropriate for an outside laboratory to conduct these tests for informational purposes. For example, a laboratory conducting a Whole Effluent Toxicity Test will need to know the pH and TRC of an effluent sample in order to set up the test correctly. Also, a laboratory may check the pH of a sample it receives to make sure it was properly preserved and will be acceptable for analysis.

As always, if you have questions, please contact your facility's assigned inspectors for assistance.

Dennis Merrill

Recent Enforcement Actions

During meetings in January and February, the Board of Environmental Protection approved the following Administrative Consent Agreements:

1) A mid-coast marine repair and alteration facility paid a $2,400 penalty and conducted a cleanup of nearly 1,000 tons of grit and grit related waste at a cost of more than $140,000. The company was cited for discharging pollutants (waste sandblast grit) without a license and for operating a waste facility without a permit. In the future, the company will install and maintain appropriate containment to minimize any discharge of waste sandblast grit to the intertidal zone.

2) A downeast coastal community paid a $10,000 penalty and installed improved chlorination equipment to maximize operation of the wastewater disinfection system. Department inspections and file reviews revealed that the operator was conducting some lab analyses improperly

and did not do some of the required monitoring at all. The licensee was instructed regarding proper laboratory lab methods and the importance of understanding and adhering to the conditions of the waste discharge license.

3) A downeast shellfish facility paid a $500 penalty for discharging pollutants without a waste discharge license. The company operated and discharged wastewater from mussel processing equipment for five days, several months after Department staff advised them of the need for a waste discharge license. As per the Consent Agreement, the company agreed not to illegally discharge any mussel processing wastewater

John Glowa

For Practice

1. Why should you avoid getting coagulation chemicals on your skin or in your eyes?
   a. Coagulation chemicals can cause nausea and vomiting.
   b. Coagulation chemicals can cause dizziness and sleepiness.
   c. Coagulation chemicals can cause irritation and possible permanent damage.
   d. Coagulation chemicals can cause sneezing and headaches.

2. One summer morning, you look into your secondary clarifiers and see that the sludge is rising in clumps that float on the surface and are discharged over the effluent weirs. The most likely cause of this condition is:
   a. Denitrification causing a rising sludge blanket.
   b. Excess dissolved oxygen being carried into the clarifiers and forming bubbles that float the sludge.
   c. Young sludge which isn't settling properly.
   d. Straggler floc caused by old sludge that doesn't form a good blanket.

3. You notice a sour, septic odor coming from your secondary clarifiers and when you examine the return sludge, it is black. What would you do to fix this problem?
   a. increase the return rate to reduce the sludge detention time in the clarifiers.
   b. reduce the return rate to prevent septic sludge from harming the aeration basins.
   c. increase the number of times the clarifiers are cleaned.
   d. do nothing, this is a normal operating condition.

4. A stabilization pond needs to have 150 days of storage to avoid discharging during periods of low flow in the receiving stream. The pond is 15.5 acres (675,000 square feet) in area and receives an average of 150,000 gallons of wastewater per day. There is no loss of water from the pond due to evaporation or percolation. How much freeboard (unused depth) must be available at the start of the non-discharge period.
   a. 1.6 foot
   b. 2.8 feet
   c. 4.5 feet
   d. 8.7 feet

Approved Training

March 10, 2004 in Scarborough, ME Road Opening Permits/Work Zone Safety - Sponsored by MRWA – 729-6569 – Approved for 4 hours.
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March 16, 2004 in Calais, ME - BOD, Seeded BOD, E.Coli, Solids& Microscopic Examination - Sponsored by JETCC, (207) 253-8020 – Approved for 6 hours.
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March 16, 2004 in Caribou, ME – Chemical Handling and PPE - Sponsored by MRWA – 729-6569 – Approved for 4 hours.
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March 17, 2004 in Bangor, ME – Chemical Handling and PPE - Sponsored by MRWA – 729-6569 – Approved for 4 hours.
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March 18, 2004 in Augusta, ME - SCADA System Management & Maintenance - Sponsored by JETCC, (207) 253-8020 – Approved for 6 hours.
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March 19, 2004 in Lincoln, ME, Math Review for Process Control in Activated Sludge, Lagoon & Fixed Film Operations - Sponsored by JETCC, (207) 253-8020 – Approved for 6 hours.
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March 23, 2004 in N. Vassalboro, ME - pH, ISE & Disolved Oxygen Probes - Sponsored by JETCC, (207) 253-8020 – Approved for 3 hours.
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March 23, 2004 in N Vassalboro, ME - How to Read my WET Test Report - Sponsored by JETCC, (207) 253-8020 – Approved for 3 hours.
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March 24, 2004 in Portland, ME - pH, ISE & Disolved Oxygen Probes - Sponsored by JETCC, (207) 253-8020 – Approved for 3 hours.
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March 24, 2004 in Portland, ME - How to Read my WET Test Report Sponsored by JETCC, (207) 253-8020 – Approved for 3 hours.
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March 25, 2004 in Boothbay, ME – Excavation Safety & Competent Person - Sponsored by MRWA – 729-6569 – Approved for 4 hours.
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March 31, 2004 in Rumford, ME – Excavation Safety & Competent Person - Sponsored by MRWA – 729-6569 – Approved for 4 hours.
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April 6, 2004 in Orono, ME – Excavation Safety & Competent Person - Sponsored by MRWA – 729-6569 – Approved for 4 hours.
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April 13, 2004 in Bangor, ME - New Technologies for Phosphorus Removal - Sponsored by JETCC, (207) 253-8020 – Approved for 6 hours.
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April 27, 2004 in Bangor, ME – LOTO, Low Voltage & Fall Protection - Sponsored by MRWA – 729-6569 – Approved for 4 hours.
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April 28, 2004 in Houlton, ME – LOTO, Low Voltage & Fall Protection - Sponsored by MRWA – 729-6569 – Approved for 4 hours.
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May 4, 2004 in Livermore Falls, ME – LOTO, Low Voltage & Fall Protection - Sponsored by MRWA – 729-6569 – Approved for 4 hours.
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May 6, 2004 in Norway, ME – LOTO, Low Voltage & Fall Protection - Sponsored by MRWA – 729-6569 – Approved for 4 hours.

May 10, 2004 in Hallowell, ME - Operation, Troubleshooting, & Upgrade of Municipal and Industrial Lagoons *with Dr. Michael Richard* - Sponsored by JETCC, (207) 253-8020 – Approved for 6 hours.
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May 11, 2004 in Hallowell, ME - Identification of Filamentous Organisms in Activated sludge
with Dr. Michael Richard - Sponsored by JETCC, (207) 253-8020 – Approved for 6 hours.
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May 20, 2004 in Livermore Falls, ME - Residuals Management & Storage Options with Proven Beneficial Uses for Biosolids (*followed by a round of golf)* - Sponsored by JETCC, (207) 253-8020 – Approved for 6 hours.

Certification News

Those of you who have renewed your certification by submitting your renewal fee and proof of training credits will receive your renewal letters shortly. If you were under the required 18 hours of training and submitted a letter to that effect, we will hold you in a "needs training" status until we receive proof that you took the training you needed. ***If we didn't hear from you by March 1, 2004, your certification became inactive and, if you are the operator of record for your facility, you cannot legally sign the DMRs or 49 Forms for March. Contact us as soon as possible***

The Spring wastewater operator certification exam will be given on May 12, 2004 in the usual locations. Applications must be postmarked by March 27, 2004 or hand delivered to the Augusta office on March 29, 2004.

Answers to For Practice:

1. c. Coagulation chemicals contain astringents which can cause irritation to the skin and possible permanent damage to the eyes.
2. a. The most likely cause of sludge rising in large clumps in the secondary clarifier is denitrification. As the nitrates are used by faccultative bacteria, nitrogen gas is released and forms bubbles which can carry large clumps of sludge to the clarifier surface. Young sludge may have poorly settling floc particles and old sludge may have straggler floc, either of which can result in small particles of sludge overflowing the effluent weir but not large clumps of sludge. Excess dissolved oxygen carries into the secondary clarifiers is used by the aerobic bacteria to continue to break down the organic matter in the wastewater and would not come out of solution and cause rising sludge.

3. a Increasing the return rate will reduce the sludge detention time in the clarifiers and move the septic sludge back to the aeration tank where it can be properly mixed and receive oxygen.

4. c In 150 days, the pond will receive 22.5 million gallons or 3 million cubic feet of water. If the surface area is 675,000 feet, the depth of the freeboard must be 3,000,000/675,000 ≅ 4.5 feet.

Northern Maine Operators Forum
Fraser Papers, Madawaska
April 13, 2004

AGENDA

8:00	Welcome - Gilles Volpe, Fraser Papers
8:15	Operators Perspective: the new Mapleton Treatment Facility, Gilles St. Pierre, Mapleton Sewer District
8:45	Electronic DMR submittal and Operator Certification, Dick Darling, MDEP
9:15	Operator Responsibilities, Don Albert, Maine DEP
9:45	Break
10:00	NPDES/WDL Program, Brian Kavanah, Director DWRR
10:30	Thoughts from the New Director of Bureau of Land and Water Quality, Andy Fisk, Director
11:00	Open Forum
11:30	Lunch Luncheon Speaker, Alberto “Sam” Sirois, Fraser Papers
12:30	Tour of Fraser Papers Waste Treatment Facility, Jacques Marquis, Fraser Papers
2:00	Go Home

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